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ABSTRACT

As a disorder repeatedly related to body-esteem and hypothesized to be related to sexuality, bulimia was expected to be related to contraceptive behavior. This study was conducted to examine the relationship between bulimia and sexual attitudes and behavior. Female college students (N=117) considered at high, medium, and low risk for developing bulimia answered a number of questions addressing their attitudes toward and comfort with sexuality as well as their sexual and contraceptive history. Risk for developing bulimia was found to be unrelated to sexual attitudes, and weakly related to greater frequency of sexual thoughts, fantasies, and arousal. High risk women reported first engaging in intercourse at earlier ages and were also more likely than other groups to engage in risky contraceptive behavior. Despite a tendency to report a greater number of previous sexual partners, high risk women currently engaged in sex less frequently, and expected to continue to engage in sex less frequently, than lower risk women. The results suggest that bulimia may be related to greater precocious sexual activity which may be part of a generalized pattern of impulsive behavior. Lower levels of current sexual activity may represent reductions coincident to the onset of the bulimic syndrome. (Author/NB)

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SEXUAL ATTITUDES AND BEHAVIOR OF BULIMIC WOMEN:

A PRELIMINARY ANALYSIS

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ABSTRACT

One-hundred and seventeen college-aged women at high, medium, and low risk for developing bulimia answered a number of questions addressing their attitudes toward and comfort with sexuality as well as their sexual and contraceptive history. Risk for developing bulimia was unrelated to sexual attitudes, and weakly related to greater frequency of sexual thoughts, fantasies, and arousal. High risk women reported first engaging in intercourse at earlier ages and were also more likely to engage in risky contraceptive behavior than their lower risk counterparts. Despite a tendency to report a greater number of previous sexual partners, high risk women currently engaged in sex less frequently, and expected to continue to engage in sex less frequently than lower risk women. Results suggest that bulimia may be related to greater precocious sexual activity which may be part of a generalized pattern of impulsive behavior. Lower levels of current sexual activity may represent reductions coincident to the onset of the bulimic syndrome. Implications for future research are discussed.

INTRODUCTION

Anorexia nervosa and bulimia are most common in women approaching puberty and early adulthood. Consequently, the physical and emotional developments associated with this period of the life cycle are often implicated in the genesis of these disorders. One of these major facets, sexuality, has been a subject of much attention (Abraham, Bendit, Mason, Mitchell, O'Connor, Ward, Young, & Llewellyn-Jones, 1985; Beumont, Abraham, & Simson, 1981; Bruch, 1973; Buvat-Herbaut, Hebbinckuys, Lemaire, & Buvat, 1983; Herzog, Norman, Gordon, & Pepose, 1984; Leon, Lucas, Colligan, Ferdinande, & Kamp, 1985; Oppenheimer, Howells, Palmer, & Chaloner, 1985; Romeo, 1984; Scott, 1987). These researchers have explored dynamic, experiential, attitudinal, and behavioral factors in an effort to understand the relationship between eating disorders and sexuality.

Psychoanalytic formulations

Psychoanalytic theorists were the first to relate eating disorders and sexuality, viewing sexual anxiety as antecedent to anorexia nervosa. Early analytic thinkers viewed the weight loss accompanying anorexia as a manifestation of "oral impregnation" fears rooted in fixation at the oral stage of psychosexual development (cited in Scott, 1987). Contemporary analytic formulations no longer emphasize psychosexual stages, interpreting weight loss as the anorexic's attempt to delay impending sexuality and accompanying adult responsibility through curtailing the body's maturation (Bruch, 1973; Romeo, 1984).

Bulimia has rarely been traced to psychosexual beginnings (Stein, & Laakso, 1988). Lindner (1954) described his bulimic patient's voracious hunger as reflective of an insatiable desire for love, a lack of self-definition, and the desire to bear her father's child. Recent explanations reflecting dynamic thinking maintain that the behavior of the bulimic reflects a desire for intimacy but an inability to feel nourished or satisfied by intimate relationships (Cauwels, 1982).

Because analytic and dynamic formulations rely heavily on anecdotal accounts, the literature is void of empirical evidence addressing the role of psychosexual factors in the causation of eating disorders. The few existing empirical reports fail to offer support for the involvement of such factors in the development of anorexia and bulimia (Scott, 1987).

Sexual abuse or trauma

Sexual abuse or trauma has been viewed as playing a causal role in the development of eating disorders (Goldfarb, 1987; Schechter, Schwartz, & Greenfeld, 1987). A history of "adverse sexual experience" was found in 2/3 of the anorexic and bulimic subjects studied by Oppenheimer et al. (1985). The utility of this finding was limited, however, by the absence of a non-eating

disordered comparison group. These authors remain unclear about the role such sexual experiences play in the development of eating disorders, but others have been more specific. Goldfarb (1987) and Schechther et al. (1987) documented cases of anorexia, bulimia, and compulsive over-eating in patients with a history of sexual abuse or trauma. These cases of eating disorder were interpreted as defensive strategies employed to maintain a sense of control resulting from the powerlessness experienced during, and in response to, the abusive event.

Sexual abuse has been implicated as an antecedent to a number of psychological symptoms such as depression, low self-esteem, and guilt (in Goldfarb, 1987). It is not surprising to find that eating disorders, related to both depression and low self-esteem (Fairburn & Cooper, 1984; Katzman & Wolchik, 1984), are also seen in individuals with a history of abuse. It is clear, however, that sexual trauma is not the only causal path in the formulation of eating disorders. One-third of the subjects in Oppenheimer et al.'s study (1985) manifested disorders which did not stem from "adverse sexual experiences". Further research is needed to address the relative frequency of sexual abuse or trauma in eating disordered populations, particularly in comparison to non-eating disordered populations.

Sexual attitudes and behaviors

Studies of sexual attitudes and behavior have been more successful than dynamic and experiential work in providing empirical evidence relating eating disorders and sexuality (Abraham et al., 1985; Beumont et al., 1981; Buvat-Herbaut et al., 1983; Dykens & Gerrard, 1986; Leon et al., 1985; Leon, Lucas, Ferdinand, Mangelsdorf, & Colligan, 1987). As with most research on eating disorders, anorexia has dominated this work.

Anorexia. Using clinical notes and interviews, Beumont et al. (1981) found anorexics to display wide variation in sexual knowledge, attitudes, and experience. Nearly half of this study's 31 subjects viewed anxiety and guilty feelings about sexual activity and pressure by boyfriends to engage in intercourse as precipitants of their illness. Subjects also indicated that sexual problems played a role in maintaining their anorexic behavior, and that interest in and pleasure derived from sex had decreased coincident to the onset of their illness. This study was the first to systematically record the sexual histories and attitudes of anorexics, but the absence of a control group limited its value.

In a large-scale study comparing anorexics to normal school girls, Buvat-Herbaut et al. (1983) found that anorexics were more likely than controls to experience fear or disgust in response to menstruation and sexuality. These authors stress, however, that this disgust, or "rejection of a sexually attractive and menstruating body" was found only in a minority of the cases of anorexia.

Leon et al. (1985) explored the sexual attitudes of in-patient anorexics and high school controls using a series of semantic differentials. Anorexics exhibited greater negative attitudes than controls regarding the sexual and feminine appearance of their bodies (sexual-nonsexual, masculine-feminine), the evaluation of sexual feelings (beautiful-ugly, pleasant-unpleasant) and sexual interest or arousal (powerful-weak, active-inactive). Anorexics did not differ from controls in response to items on a sexual morality scale (dirty-clean, immoral-moral). These authors also found that anorexics' attitudes toward sexuality were more positive after participating in treatment.

Attitudes toward sexuality have also been examined as predictors of follow-up status in anorexics. Leon et al. (1987) found negative attitudes toward sexuality and one's body to be associated with greater personality disturbance at follow-up. This suggests the importance of obtaining sexual attitudinal data in the assessment and treatment of anorexic individuals.

These studies provide evidence of differences in the sexual attitudes of anorexics and controls as well as revealing variation in the sexual attitudes of anorexics themselves. Anorexics are more likely than controls to exhibit negative feelings about their bodies, sexual feelings and needs. Anorexics are also likely to perceive their disorder as related to sexuality. The relationship between anorexia and sexuality is further supported by parallel reductions in both anorexic symptomatology and negative attitudes toward sexuality at follow-up (Leon et al., 1985; 1987).

Bulimia. There are few existing studies of the relationship between bulimia and sexual attitudes and behavior. In a counterpart to their earlier study, Abraham et al. (1985) found bulimics and controls to exhibit similarities and differences in sexual attitudes and behavior. The 2 groups reported similar menstrual histories and attitudes toward menstruation, as well as age at first intercourse, number of sexual partners, and contraceptive knowledge. Bulimics were more likely than controls, however, to describe their libido as above average, to have experienced orgasm with masturbation and to have engaged in anal intercourse. Interestingly, bulimics were less likely to have experienced orgasm with vaginal intercourse. Bulimics were more likely to view higher body weights as unattractive, and tended to reduce their sexual activity at higher body weights. While these bulimic subjects were more sexually experimental than controls, they exhibited few basic differences in sexual attitudes and behavior.

Contrary to Abraham et al.'s findings, Dykens & Gerrard's (1986) bulimic subjects reported engaging in first intercourse at earlier ages, and having a greater number of sexual partners than repeat dieters and controls. These results, gleaned from a subject pool twice as large as Abraham et al.'s, may represent a more realistic assessment of bulimics' sexual behavior. Dykens &

Gerrard also found that bulimics were more likely than repeat dieters and controls to report using marijuana and cocaine. These findings support research suggestive of a general impulsive behavior pattern among bulimics characterized by substance abuse, impulsive shopping, stealing, and sexual behavior (Norton, Crisp, & Bhat, 1985; Pyle, Michell, Eckert, 1981; Rayes-Weiss & Ebert, 1983).

Authors of previous studies have not provided evidence for differences in the sexual attitudes of bulimic and non-bulimic women. This may be due to their reliance on a minimal number of questions in the assessment of sexual attitudes. We used an established and validated measure of attitudes toward sexuality, as well as a newer measure of comfort with sexuality, in assessing the sexual attitudes of women at risk for developing bulimia.

The studies cited above resulted in discrepancies regarding bulimics' age at first intercourse and number of sexual partners. These discrepancies were re-examined in the present study. Contraceptive behavior, a previously unaddressed aspect of sexual behavior, was also explored. Attitudes toward sexuality have been associated with a number of contraceptive behaviors including effective use of and communication regarding contraception (Fisher, Byrne, Edmunds, Miller, Kelley, & White, 1979; Fisher, Miller, Byrne, & White, 1980; Geis & Gerrard, 1984). Feelings about one's body have also been related to contraceptive behavior, although the nature of this relationship remains uncertain (Young, 1981). As a disorder repeatedly related to body-esteem (Irving, 1986; Slade, 1982; Striegel-Moore, Silberstein, & Rodin, 1986; Yager, 1984) and hypothesized to be related to sexuality, bulimia is expected to be related to contraceptive behavior.

The present study is preliminary in nature, and hypotheses specifying expected relationships are few. We hope to provide useful information in further understanding the relationship between bulimia and sexual attitudes and behavior.

METHOD

Subjects. Subjects were female students enrolled in Introductory Psychology courses at a large midwestern University during the 1988 school year. Students taking part in the study received research participation credits required to complete their psychology course. Of 499 initially screened female subjects, 150 were contacted to participate in the study. Thirty-three of these subjects cancelled or did not attend their scheduled appointments. One-hundred and seventeen subjects participated in the study.

Subjects were selected on the basis of their scores on the BULIT, a 36-item self-rating scale created to identify individuals with, or at risk for developing bulimia (Smith & Thelen, 1984). High scores on the BULIT indicate the presence of bulimic symptomatology, and Smith and Thelen use a cut-off score

of 102 to indicate the presence of bulimia. Equal numbers of high, medium, and low risk subjects were chosen using the initial distribution ($n = 499$) of BULIT scores. Subject attrition, however, led to unequal size groups. Forty subjects exhibiting the highest BULIT scores ($M = 103.4$, $SD = 10.8$), 38 subjects exhibiting scores closest to the median of the BULIT distribution ($M = 59.4$, $SD = 2.0$), and 39 subjects exhibiting the lowest BULIT scores ($M = 42.3$, $SD = 2.5$) made up the high, medium, and low risk groups respectively. A lack of subjects with scores equal to or above 102 made it necessary to use subjects exhibiting scores below Smith and Thelen's cut-off.

Subject age, ethnicity, height and weight were also obtained. The mean age of subjects participating in the study was 19. Sixteen subjects did not report their ethnicity. Of the remaining 101 subjects, 88 were white, 3 were black, 2 were Asian, 5 were Hispanic, and 3 reported belonging to "other" ethnic groups. There were no differences in the age or ethnicity of subjects in the different risk groups. A chi-square analysis of weight classification, however, revealed that more high than medium or low risk subjects had a "large frame" as defined by the 1983 Metropolitan height/weight chart ($X^2(4) = 13.92$, $p = .01$).

Procedure. Questionnaires were administered by a female experimenter to the subjects in groups ranging from 5 to 10 individuals. Standardized instructions were given by the experimenter, after which subjects read and signed consent statements. Subjects were administered a packet of 10 randomly ordered questionnaires. Three of these questionnaires (The Sexuality Scale, Sexual Opinion Survey, and Sex and Contraceptive History questionnaire) were administered for use in the present study, while the other 7 were part of a separate ongoing project. Subjects were given two hours to complete the questionnaires, although the average completion time was one hour. After finishing the packet of materials, subjects were given a brief written explanation of the study's purpose. Before leaving, subjects signed statements requesting that they not reveal the nature or purpose of the study to classmates who might later be asked to participate.

Materials

The BULIT. This 36-item self-rating scale was developed to assess the symptoms of bulimia. Items on the BULIT reflect behavioral and emotional dimensions of bulimia, and parallel the diagnostic criteria for bulimia outlined in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1980). BULIT items are scored on a 5-point Likert scale, 1 indicating the least symptomatic, and 5 indicating the most symptomatic response. Order of response is varied so that the first response is not always the one which is the least or most symptomatic. Scores are derived by summing subjects' responses to the 36 items, and can range from 36 to 180 points.

Authors of the BULIT recommend a cut-off score of 102 to distinguish bulimic from non-bulimic individuals. The BULIT's test-retest reliability was found to be .87 ($p < .0001$) in a non-clinical sample (Smith & Thelen, 1984). The BULIT was found to be convergently valid with the Binge Scale ($r=.93$, $p < .0001$), another index of bulimia, and less convergently valid with the Eating Attitudes Test (EAT), an index of anorexia nervosa ($r=.68$, $p < .0001$) (Smith & Thelen, 1984).

The Sexual Opinion Survey (SOS). This 21-item scale was initially developed by White, Fisher, Byrne, & Kingma (1977) to measure individuals' emotional orientation toward sexuality. Subjects indicate their extent of agreement with each statement (e.g., "The thought of engaging in unusual sex practices is highly arousing.") on a seven-point Likert type scale from 1 ("I Strongly Disagree") to 7 ("I Strongly Agree"). SOS scores can range from 0 to 126, with low scores indicating negative or "erotophobic", and high scores indicating positive or "erotophilic" emotional responses to sexuality. The split-half reliability of the SOS has been reported to be .84 and above (Fisher, Byrne, Edmunds, Miller, Kelley, & White, 1979). Construct validity has been demonstrated in the SOS' ability to consistently predict emotional responses to erotica across different samples of subjects (cited in Fisher, Byrne, & White, 1983). These same authors found SOS scores to be unrelated to responses on a measure of social desirability.

The Sexuality Scale. This 21-item test was designed to measure individuals' comfort with their sexuality (Irving & Thissen, 1987). Items are scored on a 7-point Likert type scale ranging from 1 (responses indicating extreme discomfort) to 7 (responses indicating extreme comfort). Responses to these 21 items are summed to create a total Sexuality Scale score, with higher scores reflecting greater comfort with sexuality. In an item factor analysis, scale items were found to represent 4 factors: thoughts about sex and being a sexual person, frequency of sexual thoughts, fantasies, and arousal, importance of sexuality in one's life, and pleasure derived from engaging in sexual activity and being a sexual person. Scores on these factors are derived by summing items making up each respective factor. Higher scores reflect greater comfort with the aspect of sexuality represented by each factor. The Sexuality Scale is in its initial stages of construction, and its reliability and validity are being evaluated.

Sexual and Contraceptive History. This 20-item questionnaire was developed for use in a previous study (Frost, 1987), and is used to obtain information about sexually active subjects' sexual and contraceptive history. The 20 multiple-choice items include age at first intercourse, number of previous sex partners, commonly used and preferred methods of contraception, patterns of communication regarding use of contraception, and duration and

level of commitment of current love relationship(s).

RESULTS

Sexual attitudes. Pearson correlation coefficients were computed for the BULIT, Sexual Opinion Survey, and the Sexuality Scale and its respective factors (see Table 1). The Sexual Opinion Survey and the The Sexuality Scale were significantly correlated ($r = .55$, $p < .001$). The Sexual Opinion Survey was also significantly correlated with each factor of the Sexuality Scale, although these correlations differed in magnitude. The SOS was most strongly correlated with thoughts about sexuality ($r = .61$, $p < .001$), followed by frequency of sexual thoughts/fantasies/arousal ($r = .47$, $p < .001$), importance of sexuality ($r = .45$, $p < .001$), and finally, pleasure in response to sexuality ($r = .30$, $p < .001$). The direction of these correlations indicates that a positive emotional response to sexuality (erotophilia) is related to increased comfort with sexuality.

The BULIT was positively correlated with the Frequency factor of the Sexuality Scale ($r = .16$, $p = .04$). The BULIT was not significantly correlated with the SOS, the total Sexuality Scale, or any remaining Sexuality Scale factors. Although most of these correlations were non-significant, it is interesting that the direction of correlations between the BULIT and all but the Pleasure factor of the Sexuality Scale were positive.

Sexual and contraceptive history. Sexual and contraceptive history were examined in a series of contingency tables analyzing subject response by risk group membership (high, medium, and low). Chi-square analyses were used to test differences in risk group responses. Thirty-three subjects who had not yet engaged in sexual intercourse were omitted from these analyses.

Similar numbers of high, medium, and low risk subjects reported previously engaging in sexual intercourse (73%, 71%, and 71% respectively). High risk subjects reported initially engaging in sex at an earlier age than medium or low risk subjects ($X^2(2) = 3.81$, $p = .05$; see Table 2). While there was a tendency for high risk subjects to report a greater number of previous sexual partners, this difference was not large enough to warrant significance (see Table 3).

There were no risk group differences in the self-reported method of contraception used by subjects: (1) at first intercourse, (2) at most recent intercourse, (3) most frequently, or (4) currently. There were differences, however, in preferred method of birth control. High risk subjects reported a preference for not using birth control, or for using withdrawal as a means of contraception (see Table 4). Medium and low risk subjects preferred to use the pill or condoms rather than using withdrawal or engaging in unprotected sex ($X^2(2) = 6.78$, $p = .03$). Consistent with this, high risk subjects reported engaging in unprotected intercourse more frequently than did lower risk

subjects ($X^2(8) = 19.88$, $p = .01$; see Table 5). There appears to be a linear relationship between risk and frequency of unprotected intercourse, with medium risk subjects engaging in unprotected intercourse less frequently than high risk subjects and more frequently than low risk subjects.

Despite higher rates of unprotected intercourse, there were no differences in the number of unplanned pregnancies occurring in sexually active high, medium, and low risk subjects (10%, 11%, and 15% respectively). There were also no differences in the action subjects would take if they were to become pregnant within the next 6 months (abort, keep the baby, or put the baby up for adoption).

There were risk group differences in the self-reported frequency of sexual intercourse in the past 6 months, and in the estimated frequency of sexual intercourse in the next 6 months. High risk subjects reported engaging in sexual intercourse less frequently in the past 6 months ($X^2(4) = 11.04$, $p = .03$), and estimated engaging in intercourse less frequently in the next 6 months ($X^2(4) = 10.09$, $p = .04$) than did medium and low risk subjects (see Tables 6 and 7). Once again, there appears to be a linear relationship between frequency of past and estimated future sexual activity, with medium risk subjects falling in between high and low risk groups.

There were no reliable differences in the level of commitment or duration of the current relationship(s) of high, medium, and low risk subjects. There were risk group differences, however, in the manner in which contraception had been discussed in previous relationships. High risk subjects were more likely to have mentioned birth control after first engaging in intercourse, or not at all, while medium and low risk subjects were more likely to have discussed birth control before engaging in intercourse. Low risk subjects were more likely to report discussing contraception "...only if an ongoing relationship were established." ($X^2(4) = 10.09$, $p = .04$; see Table 8). This final response choice could reflect responsible or irresponsible contraceptive behavior, making interpretation difficult.

DISCUSSION

Risk for bulimia was not significantly related to sexual attitudes, and weakly related to greater frequency of sexual thoughts, fantasies, and arousal. This relationship could represent a heightened "libido" as reported by subjects in the Abraham et al. study (1985). Greater frequency of sexual thoughts and fantasies could also be related to bulimics' current infrequent sexual activity. Just as dieting may lead us to spend more time thinking about food, abstinence may lead these women to spend more time thinking about sexual matters. While the remaining correlations between risk and comfort with sexuality were not statistically significant, the positive direction of all but one of these correlations is interesting, suggesting that

bulimic women may be interested in and concerned about their sexuality, but have difficulty deriving pleasure from being sexual persons. A more carefully screened sample of bulimic women could strengthen these correlations and provide statistical support for these suppositions.

Consistent with Dykens & Gerrard (1986), high risk women reported engaging in sex at earlier ages than their lower risk counterparts. While there was a tendency for bulimics to report a greater number of sexual partners, it was non-significant. Bulimia has been related to a variety of impulsive behaviors (Norton et al., 1985; Pyle et al., 1981; Weiss & Ebert, 1983), and findings supportive of bulimics' greater sexual experience may reflect a general rather than specific behavioral tendency.

Despite engaging in sex at earlier ages, high risk subjects currently engaged in sex less frequently, and expected to continue to engage in sex less frequently than lower risk subjects. Given their earlier initiation into sexual activity (offering the opportunity for a greater number of sexual partners), this finding could represent a reduction in the recent sexual activity of high risk women. Abraham et al. (1985) found that bulimics reduced their social and sexual activity at higher body weights which subjects related to feeling unattractive. Unfortunately, data addressing this question were not included in the present study. Decreases in bulimics' sexual activity could also be related to the bulimic syndrome itself, a cycle involving great amounts of time and energy. Bulimics have been known to binge for hours on end, sacrificing relationships with friends and family in order to maintain their behavior (Cauwels, 1983).

There were a number of differences in the contraceptive behavior of women at varying risk for developing bulimia. High risk women were less likely to use reliable contraceptive methods than lower risk women. High risk women were also less likely to discuss contraception with their partners prior to engaging in sexual intercourse. This did not appear to be due to risk group differences in commitment to or length of current love relationship(s). Risky contraceptive behavior has been associated with negative attitudes toward sexuality as measured by the SOS (Fisher et al., 1979). This explanation was not supported in the present study, where risk for bulimia was unrelated to subjects' SOS scores. Risky contraceptive behavior may be a manifestation of bulimics' previously described tendency to behave impulsively. Effective use of contraception requires foresight and planfulness. Impulsive sexual behavior may leave little time for such initiative.

In summary, we found no evidence supporting a relationship between risk for bulimia and sexual attitudes. Bulimia was associated with increased frequency of sexual thoughts, fantasies and arousal, and engaging in sexual intercourse at earlier ages. This, taken in conjunction with high risk subjects' unreliable contraceptive practices, suggests that bulimics may exhibit a greater amount of sexual energy (Abraham et al., 1985) or a more impulsive pattern of sexual behavior than their lower risk

counterparts. High risk women were currently less sexually active than their lower risk subjects. This may represent a reduction in sexual activity coincident to the onset of bulimic symptoms, though data directly addressing this supposition were not collected in the present study.

These results support previous work, and provide new information regarding the relationship between bulimia and sexual attitudes and behavior. Replication is necessary to ensure the validity of, as well as provide explanations for some of the current findings. Researchers interested in replication and expansion are advised to utilize a carefully screened subject pool (diagnostic interviews as well as a paper and pencil measure) and include a broader data set to supplement and improve upon present results.

REFERENCES

- Abraham, S. F., Bendit, N., Mason, C., Mitchell, H., O'Connor, N., Ward, J., Young, S., & Llewellyn-Jones, D. (1985). The psychosexual histories of young women with bulimia. Australian and New Zealand Journal of Psychiatry, 19, 72-76.
- Beumont, P. J. V., Abraham, S. F., & Simson, K. (1981). The psychosexual histories of adolescent girls and young women with anorexia nervosa. Psychological Medicine, 11, 131-140.
- Brooks-Gunn, J., & Warren, M. P. (1985). The effects of delayed menarche in different contexts: Dance and nondance students. Journal of Youth and Adolescence, 14, 285-300.
- Bruch, H. (1973). Eating Disorders: Obesity, Anorexia Nervosa, and the Person Within (pp. 96-99). New York: Basic Books, Inc.
- Buvat-Herbaut, M., Hebbinckuys, P., Lemaire, A., & Buvat, J. (1983). Attitudes toward weight, body image, eating, menstruation, pregnancy, and sexuality in 81 cases of anorexia compared with 288 normal control school girls. International Journal of Eating Disorders, 2, 45-59.
- Cauwels, J. (1983). Bulimia. New York: Doubleday & Company.
- Dykens, E. M., & Gerrard, M. (1986). Psychological profiles of purging bulimics, repeat dieters, and controls. Journal of Consulting and Clinical Psychology, 54, 283-288.
- Fairburn, C. G., & Cooper, P. J. (1984). The clinical features of bulimia nervosa. British Journal of Psychiatry, 144, 238-246.
- Fisher, W. A., Byrne, D., Edmunds, M., Miller, C. T., Kelley, K., & White, L. A. (1979). Psychological and situation-specific correlates of contraceptive behavior among university women. Journal of Sex Research, 15, 38-55.
- Fisher, W. A., Miller, C. T., Byrne, D., & White, L. A. (1980). Talking dirty: Responses to communicating a sexual message as a function of situational and personality factors. Basic and Applied Social Psychology, 1, 115-126.
- Fisher, W. A., Byrne, D., & White, L. A. (1983). Emotional barriers to contraception. In D. Byrne & W. A. Fisher (Eds.), Adolescents, sex, and contraception. Hillsdale, NJ: Erlbaum.

- Frost, H. L. (1988). Responsible sexual behavior: Communication, contraception, and "safer sex" practices. Unpublished master's thesis, University of Kansas, Lawrence, KS.
- Geis, B. D., & Gerrard, M. (1984). Predicting male and female contraceptive behavior: A discriminant analysis of groups high, moderate, and low in contraceptive effectiveness. Journal of Personality and Social Psychology, 46, 669-680.
- Goldfarb, L. A. (1987). Sexual abuse antecedent to anorexia nervosa, bulimia, and compulsive overeating: Three case reports. International Journal of Eating Disorders, 6, 675-680.
- Herzog, D. B., Norman, D. K., Gordon, C., and Pepose, M. (1984). Sexual conflict and eating disorders in 27 males. American Journal of Psychiatry, 141, 989-990.
- Irving, L. M. (1986). Mirror images: Effects of the standard of beauty on women's self and body-esteem. Unpublished master's thesis, University of Kansas, Lawrence, KS.
- Irving, L. M., & Thissen, D. (1987). The Sexuality Scale: a measure of intrapersonal comfort with sexuality. Unpublished raw data.
- Katzman, M. A., & Wolchik, S. A. (1984). Bulimia and binge eating in college women: A comparison of personality and behavioral characteristics. Journal of Consulting and Clinical Psychology, 52, 423-428.
- Leon, G. R., Lucas, A. R., Colligan, R. C., Ferdinande, R. J., & Kamp, J. (1985). Sexual, body-image, and personality attitudes in anorexia nervosa. Journal of Abnormal Child Psychology, 13, 245-258.
- Leon, G. R., Lucas, A. R., Ferdinand, R. F., Mangelsdorf, C., & Colligan, R. C. (1987). Attitudes about sexuality and other psychological characteristics as predictors of follow-up status in anorexia nervosa. International Journal of Eating Disorders, 6, 477-484.
- Lindner, R. H. (1954). The fifty-minute hour (pp. 84-124). New York: Bantam Books.
- Norton, K. R., Crisp, A. H., & Bhat, A. V. (1985). Why do some anorexics steal? Personal, social and illness factors. Journal of Psychiatric Research, 19, 385-390.

- Oppenheimer, R., Howells, K., Palmer, R. L., & Chaloner, D. A. (1985). Adverse sexual experience in childhood and clinical eating disorders: A preliminary description. Journal of Psychiatric Research, 19, 357-361.
- Pyle, R. L., Michell, J. E., & Eckert, E. D. (1981). Bulimia: A report of 34 cases. Journal of Clinical Psychiatric Research, 42, 60-64.
- Raynes-Weiss, S., & Ebert, M. H. (1983). Psychological and behavioral characteristics of normal-weight bulimics and normal-weight controls. Psychosomatic Medicine, 45, 293-302.
- Romeo, F. F. (1984). Adolescence, sexual conflict, and anorexia nervosa. Adolescence, 19, 551-555.
- Russell, F. M. (1985). Premenarchal anorexia nervosa. Journal of Psychiatric Research, 19, 363-369.
- Schechter, J. O., Schwartz, H. P., & Greenfeld, D. G. (1987). Sexual assault and anorexia nervosa. International Journal of Eating Disorders, 6, 313-316.
- Scott, D. W. (1987). The involvement of psychosexual factors in the causation of eating disorders: Time for a reappraisal. International Journal of Eating Disorders, 366, 199-213.
- Slade, P. (1982). Towards a functional analysis of anorexia nervosa and bulimia nervosa. British Journal of Clinical Psychology, 21, 167-179.
- Smith, M. C., & Thelen, M. H. (1984). Development and validation of a test for bulimia. Journal of Consulting and Clinical Psychology, 52, 863-872.
- Stein, D. M., & Laakso, W. (1988). Bulimia: A historical perspective. International Journal of Eating Disorders, 7, 201-210.
- Striegel-Moore, R. H., Silberstein, L. R., & Rodin, J. (1986). Toward an understanding of the risk factors for bulimia. American Psychologist, 41, 246-263.
- White, L. A., Fisher, W. A., Byrne, D., & Kingma, R. (1977). Development and validation of a measure of affective orientation to erotica: The Sexual Opinion Survey. Midwestern Psychological Association, Chicago.
- Yager, J. (1984). Bulimia. The Journal of Family Medicine, January, 16FM-30FM.

Bulimia and sexuality, 15

Young, M. (1981). Body image and contraceptive use by college females. Perceptual and Motor Skills, 53, 456-458.

Table 1:¹
Correlations between risk and sexuality scales

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(117) ²	(110)	(116)	(116)	(117)	(112)	(117)
(1) Risk (BULIT score)	1.00						
(2) Sexuality Scale	.10 (.15) ³	1.00					
(3) Thought Factor	.09 (.18)	.86	1.00				
(4) Importance Factor	.11 (.12)	.90	.67	1.00			
(5) Frequency Factor	.16 (.04)	.83	.68	.70	1.00		
(6) Pleasure Factor	-.06 (.27)	.72	.47	.62	.46	1.00	
(7) Sexual opinion survey	.05 (.31)	.55	.61	.45	.47	.30	1.00

¹ All correlations between the Sexual Opinion Survey, The Sexuality Scale and its respective subscales are significant at the .001 level. Only the remaining significance levels are shown.

²Numbers appearing in parentheses represent the number of subjects completing all items on each individual scale.

³Numbers appearing in parentheses are significance levels.

Table 2:¹
Risk by age at first intercourse

	Less than 17 years N(%)	Greater than 17 years N(%)
High Risk	18 (62)	11 (38)
Medium/ Low Risk	20 (37)	34 (63)
	38 (46)	45 (54)

¹33 subjects had not yet engaged in intercourse.

$\chi^2(1) = 3.81, p = .05$

Table 3:¹
**Risk by self-reported number of previous
sexual partners**

	One/two N (%)	Three/four N (%)	Five to ten N (%)	More than ten N(%)
High Risk	10(33)	11(37)	5(17)	4(13)
Medium Risk	15(56)	6(22)	5(19)	1(4)
Low Risk	15(56)	6(22)	5(19)	1(4)

¹33 subjects had not yet engaged in intercourse.

$\chi^2(6) = 6.01, p = .4$

Table 4:¹
Risk by preferred method
of contraception

	None/withdrawal N(%)	Pill/Condom N(%)
High Risk	5 (18)	23 (82)
Medium Risk	1 (4)	25 (96)
Low Risk	0 (0)	25 (100)
	6 (8)	73 (92)

¹33 subjects had not yet engaged in intercourse, 2 subjects failed to respond, and 3 subjects reported using other methods of contraception.

$\chi^2 (1) = 6.78, p = .03$

Table 5:1
Risk by self-reported frequency of
unprotected intercourse

	Never N (%)	Infrequently N (%)	On occasion N (%)	Often N(%)	Always N(%)
High Risk	0 (0)	13 (45)	8 (28)	5 (17)	3 (10)
Medium Risk	7 (26)	11 (41)	3 (11)	4 (15)	2 (7)
Low Risk	13 (48)	7 (26)	4 (15)	1 (4)	2 (7)
	20 (24)	31 (37)	15 (18)	10 (12)	7 (8)

133 subjects had not yet engaged in intercourse, and 1 subject failed to respond.

$\chi^2 (8) = 19.88, p = .01$

Table 6:¹
Risk by self-reported frequency of intercourse in
the last 6 months

	Once a week or more N (%)	Once or twice a month N (%)	Less than once a month/never N (%)
High Risk	10 (33)	7 (28)	13 (43)
Medium Risk	7 (26)	11 (41)	9 (33)
Low Risk	17 (63)	6 (22)	4 (15)
	34 (40)	24 (29)	26 (31)

¹33 subjects had not yet engaged in intercourse.

$\chi^2(4) = 11.04, p = .03$

Table 7:1
Risk by estimate of frequency of intercourse
in the next 6 months

	Once a week or more N (%)	Once or twice a month N (%)	Less than once a month/never N (%)
High Risk	10 (45)	3 (14)	9 (41)
Medium Risk	5 (29)	8 (47)	4 (24)
Low Risk	15 (63)	3 (12)	6 (25)
	30 (48)	14 (22)	19 (30)

133 subjects had not yet engaged in intercourse, and 21 subjects responded "i don't know".

$$\chi^2(4) = 10.09, p = .04$$

Table 8:¹
Risk by communication regarding contraception:
When has birth control been mentioned
in past relationships?

	Sometimes before/immediately before intercourse N (%)		After intercourse/ not at all N (%)		Mentioned only if committed N (%)	
High Risk	13	(45)	11	(38)	5	(17)
Medium Risk	18	(67)	4	(15)	5	(19)
Low Risk	15	(58)	2	(8)	9	(35)
	46	(56)	17	(21)	19	(23)

¹33 subjects had not yet engaged in intercourse, and 2 subjects failed to respond.

$$\chi^2 (4) = 10.09, p = .04$$